Notice No.2

Rules and Regulations for the Construction and Classification of Ships for the Carriage of Liquefied Gases in Bulk, July 2018

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices. Any corrigenda included in the Notice are effective immediately.

Please note that corrigenda amends to paragraphs, Tables and Figures are not shown in their entirety.

Issue date: June 2019

Amendments to	Effective date	IACS/IMO implementation (if applicable)
Chapter 1, General	1 July 2019	N/A
Chapter 4, Part-B, Section 4	1 July 2019	N/A
Chapter 4, Part-D, Section 4	1 July 2019	1 July 2019
Chapter 5, Section 5	1 July 2019	1 July 2019
Chapter 6, Section 6	1 July 2019	N/A

Lloyd's Register

Chapter 1
General

General

1.1 Application and implementation

LR 1.1-04 For classification, the *Rules and Regulations for the Classification of Offshore Units*, Pt 11 and the ~~*Provisional Rules for LNG Ships and Barges Equipped with Regasification Systems*~~ *Rules for LNG Ships and Barges Equipped with Regassification Systems, January 2019* may also apply.

Chapter 4
Cargo Containment

Part B – Design Loads

4.14 Environmental loads

LR 4.14-04 Where a vessel is intended to operate in cold climates, the temperature on exposed surfaces is to be considered. *See ~~the Provisional Rules for the Winterisation of Ships~~* the *Rules for the Winterisation of Ships, July 2019*.

Part D – Materials and Construction

4.19 Materials

4.19.1 ***Materials forming ship structure***

4.19.1.6 The means of heating referred to in 4.19.1.5 shall comply with the following requirements:

.1 the heating system shall be arranged so that, in the event of failure in any part of the system, standby heating can be maintained equal to not less than 100% of the theoretical heat requirement;

.2 the heating system shall be considered as an essential auxiliary. All electrical components of at least one of the systems provided in accordance with 4.19.1.5.1 shall be supplied from the emergency source of electrical power; and

.3 the design and construction of the heating system shall be included in the approval of the containment system by the Administration or recognized organization acting on its behalf.

LR 4.19-05 Details of proposed systems for the means of heating structural members to ensure that the material temperature does not fall below the minimum temperature allowed for the grade of material specified in Table 6.5 are to be submitted. The level of heating system redundancy required by 4.19.1.6 is to be demonstrated through compliance with the following:

.1 The heating system referred to in 4.19.1.6.1 is to be such that in case of a single failure of a mechanical or electrical component in any part of the system, heating can be maintained at not less than 100 per cent of the theoretical heat requirement.

.2 Where the above requirements are met by duplication of the system components, i.e. heaters, glycol circulation pumps, electrical control panel, auxiliary boilers, etc., all electrical components of at least one of the systems are to be supplied from the emergency switch board.

.3 Where duplication of the primary source of heat, e.g. oil-fired boiler, is not feasible, alternative proposals such as an electric heater capable of providing 100 per cent of the theoretical heat requirement is to be provided and is to be supplied by an independent circuit arranged separately on the emergency switchboard. Other solutions may be considered acceptable towards satisfying the requirements specified in 4.19.1.6.1 provided that a suitable risk assessment is conducted to the satisfaction of the Administration. The requirement in paragraph LR 4.19-05 .2 continues to apply to all other electrical components in the system.

Chapter 5
Process Pressure Vessels and Liquid, Vapour and Pressure Piping Systems

5.13 Testing requirements

5.13.1 ***Type testing of piping components***

(Part only shown)
5.13.1.1 Valves

Each type of valve intended to be used at a working temperature below -55ºC shall be subject to the following type tests:

.4 for emergency shutdown valves, with materials having melting temperatures lower than 925°C, the type testing shall include a fire test to a standard acceptable to the Administration.

LR 5.13-04 Emergency shutdown valves, with materials having melting temperatures lower than 925°C does not include an emergency shutdown valve in which components made of materials having melting temperatures lower than 925°C do not contribute to the shell or seat tightness of the valve.

Existing paragraphs LR 5.13-04 to LR 5.13-05 have been renumbered LR 5.13-05 to LR 5.13-06.

Chapter 6
Materials of Construction and Quality Control

6.3 General test requirements and specifications

LR 6.3-01 The grades of materials used are, ~~to~~ generally, to have mechanical properties complying with the appropriate requirements as given in the Rules for Materials. ~~Generally,~~ Provided that the materials has satisfactory ductility, there will be no limitation on the yield to tensile stress ratio, except for carbon–manganese steel grades for low temperature service. ~~provided the material has satisfactory ductility.~~ For carbon–manganese steel grades for low temperature service, the yield to tensile ratio requirement of *Ch 3, 6 Carbon–manganese and nickel alloy steels for low temperature service* of the *Rules for the Manufacture, Testing and Certification, July 2018, incorporating Notice No.1* is to be met.

6.4 Requirements for metallic materials

~~**LR 6.4-02** In ships with length exceeding 135 m, the sheerstrake is to be not less than Grade E/EH within 0,4*L* amidships.~~

Existing paragraphs LR 6.4-03 to LR 6.4-05 have been renumbered LR 6.4-02 to LR 6.4-04.

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Published by Lloyd’s Register Group Limited
Registered office (Reg. no. 08126909)
71 Fenchurch Street, London, EC3M 4BS
United Kingdom

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